# Homework 13: User Manual

***Due: Monday, May 1, at 5:00 PM***

**Team Code Name: Handy** **Group No: 11**

NOTE: This is one of the last sections needed to finish the Final Report. This homework will count for 4% of each team member's grade, and therefore all team members should participate equally in completing it. The User Manual should be about 5 pages in length (one page per bullet).

**User Manual Outline:**

- **Brief (marketing-style) product description**
- **Product illustration annotated with callouts for each control/display**
- **Product setup instructions**
- **Product use instructions**
- **Product troubleshooting instructions**

**Evaluation:**

| Component/Criterion | Score | Multiplier | Points |
|---|---|---|---|
| Product description | 0 1 2 3 4 5 6 7 8 9 10 | X 2 | |
| Product illustration with callouts | 0 1 2 3 4 5 6 7 8 9 10 | X 2 | |
| Product setup instructions | 0 1 2 3 4 5 6 7 8 9 10 | X 2 | |
| Product use instructions | 0 1 2 3 4 5 6 7 8 9 10 | X 2 | |
| Product troubleshooting instructions | 0 1 2 3 4 5 6 7 8 9 10 | X 2 | |
| | | **TOTAL** | |

*Include this sheet as a cover page for your report*

**Product description**

Thank you for choosing Handy, and congratulations on a choice well-made!

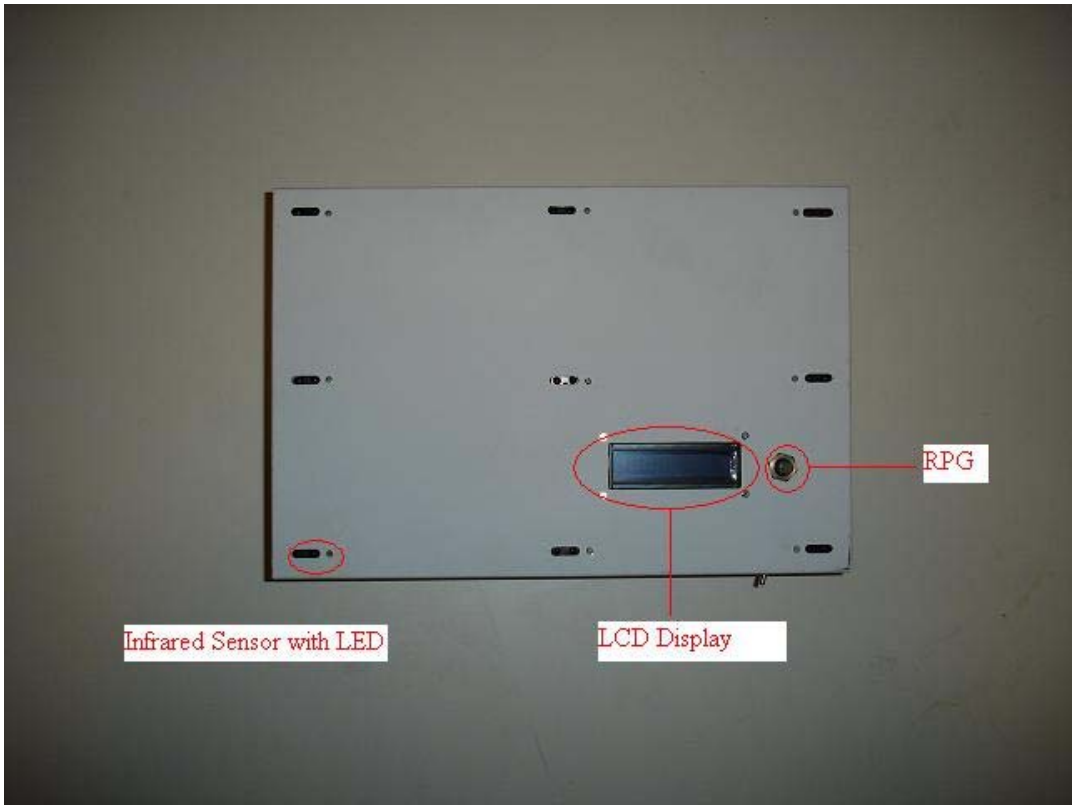
Handy is the latest in remote control technology, and will make button-pressing a thing of the past. By utilizing an intelligent sensor network hooked up to a microprocessor, Handy allows you to control your Bose SoundDock– with just a wave of your hand! Never again will you have to deal with overly-complicated remote controls with a million and one buttons.

Handy is also customizable, like any good piece of technology should be! Feel like something different today? Sure! Use the LCD and RPG located on the top face of Handy to customize commands and gestures. Program gestures anyway you wish: a simple left-to-right motion, a zany zig-zag… the choice is yours!

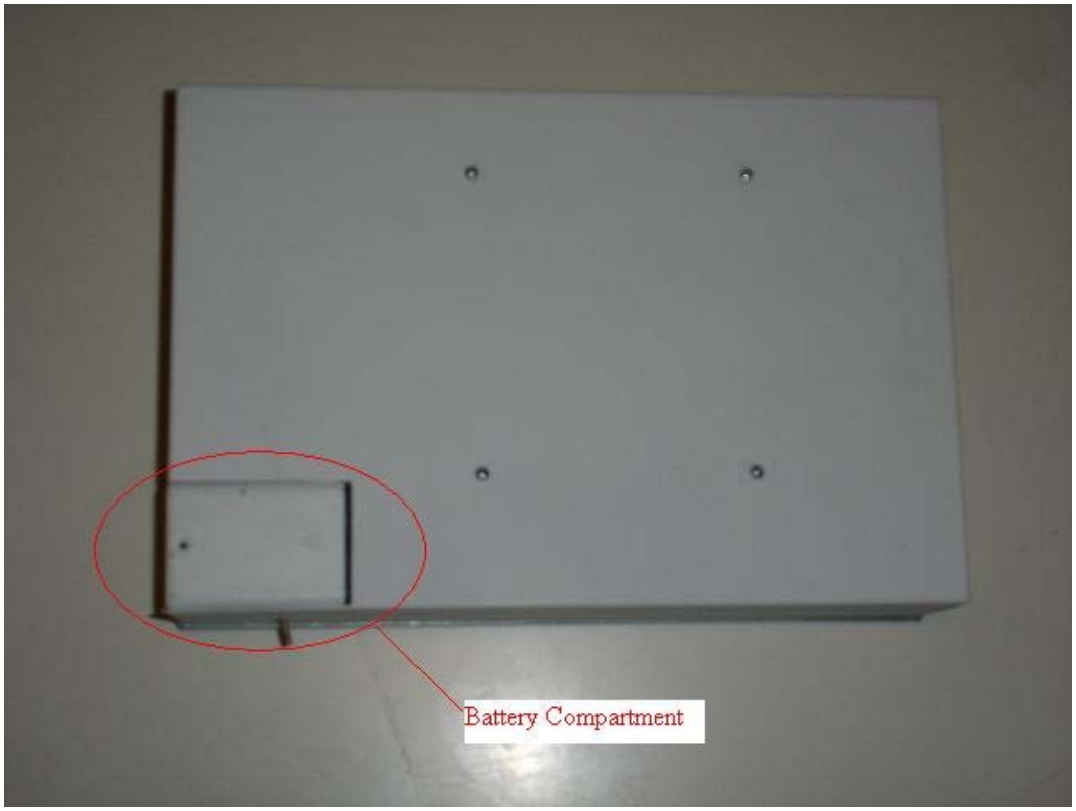
Packaged in a sleek and classic white casing, Handy is anything **but** boring! Customizability, ease of use and that all-important cool factor make for a remote control that is light years ahead of the rest. Place it in your living room and impress family and friends with the remote control of the future!

**Product illustration with callouts**

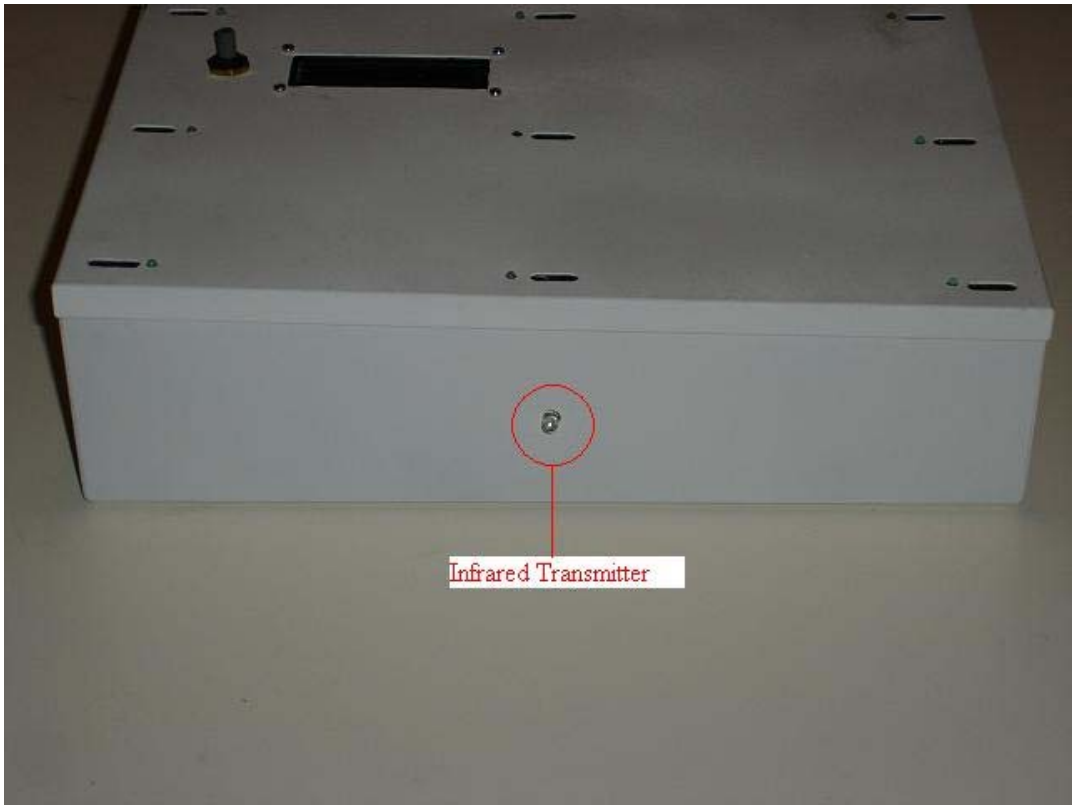
Top View




Bottom View



Front View




Back View

**Product setup instructions**

To set up Handy:

1. Turn Handy upside-down and slide off battery compartment cover.
2. Insert 3 fresh AA batteries.
3. Slide battery compartment cover till a click is heard. Make sure cover is properly closed.
4. Turn Handy right side up and set it down on a flat surface such that the front plate is directly facing the SoundDock.
5. Flip the Power switch.

Congratulations! You have successfully set Handy up!

**Product use instructions**

Getting started

1. Flip the power switch to the On position.
2. Handy's LCD display will light up, and a welcome message will be displayed. This indicates that Handy has come out of sleep mode.
3. If no gesture is performed, Handy will power down and go into Sleep mode, and the LCD display will turn dark.

Recognizing

1. Hold your hand above the middle sensor to bring Handy out of sleep mode. The welcome message will be displayed.
2. Keep your hand above the middle sensor till "Recognizing…" is displayed on the LCD screen.
3. Once it is displayed, perform your hand gesture.
4. If your hand gesture is not successfully recognized, "Unrecognized!" will be displayed. Repeat Steps 2 and 3.
5. If your hand gesture is successfully recognized, the sent command (example "Volume Down!") will be displayed on the LCD screen.

Customizing

1. Hold your hand above the middle sensor to bring Handy out of sleep mode. The welcome message will be displayed.

2. Press the RPG button once to display the user-interface menu on the LCD screen.
3. Scroll to "Customize" by twisting the RPG knob clockwise or anticlockwise, and select by pressing the RPG button once. This will bring up a menu of the commands that can be customized.
4. Scroll and select the command to be customized using the RPG. For this example, we will assume that Volume Up was selected. The LCD will then display "Recording: Volume Up".
5. Hold your hand above the middle sensor for approximately 1 second, and then perform the gesture.
6. Once the gesture has been stored, "Recorded! Press to return" will be displayed on the LCD screen. Pressing the RPG button will return you to the command menu, and will allow you to customize the other commands.
7. Once you are satisfied with your customized gestures, scroll down and select "<-- ". This will bring you back to the main menu.

<u>Sending commands manually</u>

1. Commands may be sent manually by selecting "Send Command" from the main menu.
2. Upon selecting "Send Command", a menu displaying all the commands available is displayed.
3. Scroll up and down and select the desired command using the RPG.
4. After the command is sent, a confirmation message will be displayed on the LCD screen. (For example "Sent Play! Press to return.").
5. Press the button to return to the command menu, and repeat Steps 3 and 4 to send different commands to the hi-fi system.

**Troubleshooting**

| Problems | Possible Cause | Solution |
|---|---|---|
| Handy will not start up/LCD will not light up. | Batteries are low/ no batteries in the battery compartment. | Replace or insert fresh batteries. |
| | Battery compartment has loose connection. | Check for loose connection and secure. |
| | LCD display disconnected or not functioning. | Secure connection or replace LCD. |
| No command sent to hi-fi system. | Infrared transmitter not functioning | Replace infrared transmitter |
| | Infrared sensor(s) not functioning. | Replace infrared sensor(s). |
| Handy does not recognize gestures. | Handy not in recognition mode. | Perform gestures after switching to recognition mode. |
| | Infrared sensor(s) not functioning. | Replace infrared sensor(s). |
| Unable to navigate thru menu. | RPG not functioning. | Replace RPG |
| Unable to program gestures. | Handy not in customization mode. | Perform gestures after switching to customization mode. |